

***Response to Amendment***

- The reply filed September 30 2009, has been received and entered.
- The rejection of claims 21-30 under 35 U.S.C. § 101 is withdrawn in view of applicant's **amendment to the specification** and corresponding remarks.
- The rejection of claims 31-36 under 35 U.S.C. § 101 is withdrawn in view of **applicant's amendment** (cancellation of the claims).

***EXAMINER'S AMENDMENT***

1. An examiner's amendment to the record appears below. Should the changes and or additions be acceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Thinh V. Nguyen on 10/15/09.

**Please amend the claims as Follows:**

1. (currently amended) An apparatus comprising:  
a buffer to store at least a default stream coded by a multiple description (MD) coding and a restart stream coded by a predictive coding, the default and restart streams corresponding to a media content;

a selector coupled to the buffer to select a transmit frame from the default and restart streams according to a transmission status, the transmit frame being transmitted to a receiver; and

an analyzer coupled to the selector to provide the transmission status based on feedback information provided by the receiver;

wherein the default stream includes a plurality of description streams that are independently encoded.

2. (original) The apparatus of claim 1 wherein the transmission status is one of a normal condition and a restart condition, the restart condition indicating that there is a frame loss in a description stream of the default stream and that it is time to transmit a frame from the description stream having the frame loss.

3. (original) The apparatus of claim 2 wherein the selector selects the transmit frame from the restart stream when the transmission status is the restart condition.

4. (original) The apparatus of claim 3 wherein the selector selects the default stream after the transmit frame is transmitted.

5. (currently amended) The apparatus of claim 1 wherein ~~the default stream includes a plurality of each of the~~ description streams has a different prediction loop that are independently encoded.

6. (original) The apparatus of claim 1 wherein the analyzer comprises:  
a delay tracker to track delay characteristics of a transmission path; and  
a probe tracker to keep track of probing packet to be sent over a transmission path to provide path statistics.

7. (original) The apparatus of claim 6 further comprising:  
an input/output (I/O) module coupled to the selector to transmit the default stream or the restart stream and the probing packets over a transmission path according to the delay characteristics or the path statistics.

8. (currently amended) An apparatus comprising:  
an input/output (I/O) module to receive a stream having a frame from a transmitter over a transmission path, the frame being selected from one of a default stream coded by a multiple description (MD) coding and a restart stream coded by a predictive coding, the default and restart streams corresponding to a media content;  
a feedback generator coupled to the I/O module to provide feedback information regarding transmission of the stream to the transmitter; and  
a decoder coupled to the feedback generator and the I/O module to decode the stream;  
wherein the decoder comprises:  
an error concealer to conceal error caused by packet loss.
9. (currently amended) The apparatus of claim 8 wherein the ~~decoder comprises:~~  
~~an error concealer to conceal error caused by packet loss~~ concealer conceals the error by  
sending a previously decoded frame or extrapolating previously received frames.
10. (original) The apparatus of claim 8 wherein the I/O module sends an acknowledgment over the transmission path when the stream is received.
11. (currently amended) A method comprising:  
storing at least a default stream coded by a multiple description (MD) coding and a restart stream coded by a predictive coding in a buffer, the default and restart streams corresponding to a media content;  
selecting a transmit frame from the default and restart streams according to a transmission status, the transmit frame being transmitted to a receiver; and  
providing the transmission status by an analyzer based on feedback information provided by the receiver;  
wherein the default stream includes a plurality of description streams that are  
independently encoded.
12. (original) The method of claim 11 wherein the transmission status is one of a normal condition and a restart condition, the restart condition indicating that there is a frame loss

in a description stream of the default stream and it is time to transmit a frame from the description stream having the frame loss.

13. (original) The method of claim 12 wherein selecting comprises selecting the transmit frame from the restart stream when the transmission status is the restart condition.

14. (original) The method of claim 13 wherein selecting comprises selecting the default stream after the transmit frame is transmitted.

15. (currently amended) The method of claim 11 wherein ~~the default stream includes a plurality of each of the~~ description streams has a different prediction loop that are independently encoded.

16. (original) The method of claim 11 wherein the providing comprises:  
tracking delay characteristics of a transmission path; and  
keeping track of probing packet to be sent over a transmission path to provide path statistics.

17. (original) The method of claim 16 further comprising:  
transmitting the default stream or the restart stream and the probing packets over a transmission path according to the delay characteristics or the path statistics.

18. (currently amended) A method comprising:  
receiving a stream having a frame from a transmitter over a transmission path, the frame being selected from one of a default stream coded by a multiple description (MD) coding and a restart stream coded by a predictive coding, the default and restart streams corresponding to a media content;  
providing feedback information regarding transmission of the stream to the transmitter;  
and  
decoding the stream;  
wherein the decoding comprises concealing error caused by packet loss.

19. (currently amended) The method of claim 18 wherein the ~~decoding~~ concealing comprises one of:

~~concealing error caused by packet loss sending a previously decoded frame; and~~  
extrapolating previously received frames.

20. (original) The method of claim 18 wherein receiving the stream comprises sending an acknowledgment over the transmission path when the stream is received.

21. (currently amended) An article of manufacture comprising:  
a machine-accessible storage medium including data that, when accessed by a machine, causes the machine to perform operations comprising:  
storing at least a default stream coded by a multiple description (MD) coding and a restart stream coded by a predictive coding in a buffer, the default and restart streams corresponding to a media content;  
selecting a transmit frame from the default and restart streams according to a transmission status, the transmit frame being transmitted to a receiver; and  
providing the transmission status by an analyzer based on feedback information provided by the receiver;  
wherein the default stream includes a plurality of description streams that are independently encoded.

22. (original) The article of manufacture of claim 21 wherein the transmission status is one of a normal condition and a restart condition, the restart condition indicating that there is a frame loss in a description stream of the default stream and that it is time to transmit a frame from the description stream having the frame loss.

23. (original) The article of manufacture of claim 22 wherein the data causing the machine to perform selecting comprises data that cause the machine to perform operations comprising selecting the restart stream when the transmission status is the restart condition.

24. (original) The article of manufacture of claim 23 wherein the data causing the machine to perform selecting comprises data that cause the machine to perform operations comprising selecting the default stream after the restart stream is transmitted.

25. (currently amended) The article of manufacture of claim 21 wherein ~~the default stream includes a plurality of~~ cach of the description streams has a different prediction loop that ~~are independently encoded.~~

26. (original) The article of manufacture of claim 21 wherein the data causing the machine to perform providing the transmission status comprises data that cause the machine to perform operations comprising:

tracking delay characteristics of a transmission path; and

keeping track of probing packet to be sent over a transmission path to provide path statistics.

27. (original) The article of manufacture of claim 26 wherein the data causing the machine to perform providing the transmission status further comprises data that cause the machine to perform operations comprising:

transmitting the default stream or the restart stream and the probing packets over a transmission path according to the delay characteristics or the path statistics.

28. (currently amended) An article of manufacture comprising:  
a machine-accessible storage medium including data that, when accessed by a machine, causes the machine to perform operations comprising:

receiving a stream having a frame from a transmitter over a transmission path, the frame being selected from one of a default stream coded by a multiple description (MD) coding and a restart stream coded by a predictive coding, the default and restart streams corresponding to a media content;

providing feedback information regarding transmission of the stream to the transmitter;  
and

decoding the stream;

wherein the data causing the machine to perform decoding comprises data that cause the machine to perform operations comprising:

concealing error caused by packet loss.

29. (currently amended) The article of manufacture of claim 28 wherein the data causing the machine to perform ~~decoding~~ concealing comprises data that cause the machine to perform operations comprising one of:

concealing error caused by packet loss sending a previously decoded frame; and  
extrapolating previously received frames.

30. (original) The article of manufacture of claim 28 wherein the data causing the machine to perform receiving the stream comprises data that cause the machine to perform operations comprising sending an acknowledgment over the transmission path when the stream is received.

31-36. (canceled)

#### ***REASONS FOR ALLOWANCE***

2. Claims **1-30** are allowed. The following is an Examiner's statement of reasons for allowance:

Independent **claim 1** of the present application teaches, for example, An apparatus comprising a buffer to store at least a default stream coded by a multiple description (MD) coding and a restart stream coded by a predictive coding, the default and restart streams corresponding to a media content; a selector coupled to the buffer to select a transmit frame from the default and restart streams according to a transmission status, the transmit frame being transmitted to a receiver; and an analyzer coupled to the selector to provide the transmission

status based on feedback information provided by the receiver wherein the default stream includes a plurality of description streams that are independently encoded. .

The foregoing limitations are not found in the prior arts of record. Particularly, none of the prior arts of record teach nor fairly suggest, *"... a buffer to store at least a default stream coded by a multiple description (MD) coding and a restart stream coded by a predictive coding, the default and restart streams corresponding to a media content; a selector coupled to the buffer to select a transmit frame from the default and restart streams according to a transmission status, the transmit frame being transmitted to a receiver; and an analyzer coupled to the selector to provide the transmission status based on feedback information provided by the receiver wherein the default stream includes a plurality of description streams that are independently encoded"*. Consequently, claim 1 is allowed over the prior arts.

Independent **claim 8** of the present application teaches, for example, An apparatus comprising an input/output (I/O) module to receive a stream having a frame from a transmitter over a transmission path, the frame being selected from one of a default stream coded by a multiple description (MD) coding and a restart stream coded by a predictive coding, the default and restart streams corresponding to a media content; a feedback generator coupled to the I/O module to provide feedback information regarding transmission of the stream to the transmitter; and a decoder coupled to the feedback generator and the I/O module to decode the stream wherein the decoder comprises: an error concealer to conceal error caused by packet loss.

The foregoing limitations are not found in the prior arts of record. Particularly, none of the prior arts of record teach nor fairly suggest *"an input/output (I/O) module to receive a stream having a frame from a transmitter over a transmission path, the frame being selected from one of*



*a default stream coded by a multiple description (MD) coding and a restart stream coded by a predictive coding, the default and restart streams corresponding to a media content; a feedback generator coupled to the I/O module to provide feedback information regarding transmission of the stream to the transmitter; and a decoder coupled to the feedback generator and the I/O module to decode the stream wherein the decoder comprises: an error concealer to conceal error caused by packet loss".* Consequently, claim 8 is allowed over the prior arts.

Independent claims **11, 18, 21 and 28** include similar limitations of independent claim 1 and 8 and therefore are allowed for similar reasons.

Dependent claims **2-7, 9, 10, 12-17, 19, 20, 22-27, 29 and 30**, depend from allowable independent claims and inherently include limitations therein and therefore are allowed as well.

### ***Conclusion***

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Esaw T. Abraham whose telephone number is (571) 272-3812. The examiner can normally be reached on M-F 8am-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Baderman can be reached on (571) 272-3644. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Esaw T Abraham/  
Primary Examiner, Art Unit 2112  
10/16/09